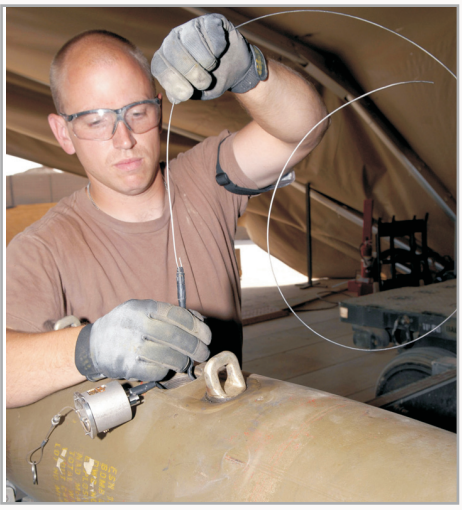
FMU-152A/B Bomb Fuze System



MAIN FEATURES

- ✓ Compatible with most U.S. Air Force, Navy, Marine Corps and NATO aircraft.
- ✓ Compatible with most in-service weapon guidance kits, tail units and high-explosive bombs.
- ✓ All arming and detonation event functions combined in a single fuze system.
- ✓ Two independent arming rotor locks to ensure high safety integrity.
- ✓ Dual independent launch signals and environmental sensing.
- ✓ Fully developed, qualified and in full rate production at two manufacturing sites.
- ✓ The annual production capacity is greater than 25,000 units.
- ✓ High altitude release capability.
- ✓ Automatic retard deceleration recognition.
- ✓ RS422 interface compatible with JDAM and Paveway weapons.
- ✓ 10 year service life and 20 year shelf life.
- ✓ Operational reliability in the field is greater than 98%.
- ✓ Compatible with UAV deployment.

SYSTEM DESCRIPTION

The FMU-152A/B Bomb Fuze is a Multi-Function Hard/Soft Target fuzing system developed for use by both NAVAIR and the USAF in the MK80 series, BLU-109, BLU-110, BLU-111, BLU-113, BLU-117, BLU-122 and in conjunction with JDAM and Paveway weapon kits and with High Drag and Low Drag Tail Kits.

In addition to impact/post-impact delay, the fuze is capable of accepting a signal from a separate Proximity Sensor (e.g., DSU-33D/B).

The Fuzing system meets the safety criteria of MIL-STD-1316D.

FUNCTIONS

- ✓ Proximity (via DSU-33D/B)
- ✓ Proximity plus delay (DSU-33D/B)
- ✓ Impact “0” delay
- ✓ Post impact delays - short
- ✓ Post impact delays - long

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FMU-152A/B Bomb Fuze System

PERFORMANCE CHARACTERISTICS

Parameter Settings	NAVAIR & USAF Applications with FZU-55A/B	NAVAIR Applications with FFCS/MK122 Safety Switch
Arming Time - High Drag	**2.0, 2.6, 3.0, 4.0,** and **5.0** seconds	2.6 sec Arm/Instant (+300 vdc) 2.6 sec Arm/Instant (-300 vdc) 2.6 sec Arm/Delay per Switches (+195 vdc) 2.6 sec Arm/Delay per Switches (-195 vdc)
Arming Time - Low Drag	**4**, 4.5, **5,** 5.5, **6**, 6.5, **7**, 7.5, **8**, 8.5, 9, 9.5, **10, 14,** 21, and **25** seconds	Arm per Switches/Instant (+300 vdc) 5.5 sec Arm/Instant (-300 vdc) Arm per Switches/Delay per Switches (+195 vdc) 5.5 sec Arm/Delay per Switches (-195 vdc)
Detonation Delay Times	**Instantaneous, 5 ms**, 15 ms, **25 ms**, 35 ms, 45 ms, **60 ms**, 90 ms, **180 ms**, 240 ms, **15 min.**, 30 min., 45 min., 60 min., **4 hrs.**, 8 hrs., 12 hrs., 16 hrs. 20 hrs., **24 hrs.**	See above
Reliability	In excess of 98% (design), in excess of 98% (operational)	
Power Supply	FZU-55A/B	FFCS at Release
Mission Duration	8 minutes	
Weapons	MK82, MK83, MK84, BLU-109, BLU-110, BLU-111, BLU-113, BLU-117, BLU-122 Bombs, Low Drag and High Drag, all JDAM and Paveway Kits	
Aircraft	All U.S. and non-U.S. Ground Attack Aircraft (F-15, F-16, F-18, F-22, F-35, F111, B-1, B-2, B-52, UAV MQ-9, Mirage 3, Gripen, Tornado and Typhoon)	
Setting Compatibility	Manual & from cockpit via MIL-STD-1760/ RS422 Interface and JDAM/Paveway kits	From cockpit via FFCS
Shelf Life	20 years	
Service Life	10 years	
Operating Temperature	-54°C to +71°C	

Note: Multiple times available via MIL-STD-1760/RS422 interface, BOD via control panel switches
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KEY FEATURES

Key features of the FMU-152A/B include ease of installation and preparation for flight, compatibility with the Proximity Sensor fire signal, ability to sense a high drag delivery and the ability to manually set the arming and event times prior to take off or electrically set them by cockpit selection prior to bomb release via FFCS or via the MIL-STD-1760/RS422 interface. The FMU-152A/B fuze is a Multi-function, electronically programmable Hard/Soft Target Fuzing System.

The fuzing system consists of a cylindrical fuze and a closure ring in the NAVAIR application. An additional turbine generator (FZU-55A/B), cable assembly is used for the USAF application.

In the NAVAIR application, power is transmitted to the fuze from the AN-AWW series Fuze Function Control Set (FFCS) at release from the aircraft.

In the USAF application, power is provided by the FZU-55A/B air-driven turbine alternator, which is lanyard activated upon release from the aircraft.

The FMU-152A/B has passed the appropriate environmental tests of MIL-STD-331 and MIL-STD-810D.

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Photos courtesy of U.S. Air Force